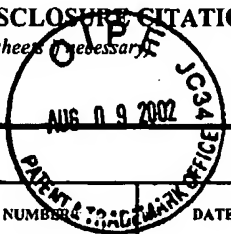


INFORMATION DISCLOSURE CITATION

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Docket Number (Optional)
HCSI-101

Application Number
10,090,632

Applicant(s)
Clark Lum

Filing Date
March 6, 2002

Group Art Unit
1636

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
gu		US 5,004,681	04/02/91	Boyse et al.			
		US 5,061,620	10/29/91	Tsukamoto et al.			
		US 5,397,706	03/14/95	Correa et al.			
		US 5,399,493	03/21/95	Emerson et al.			
		US 5,541,103	07/30/96	Kanz et al.			
		US 5,599,703	02/04/97	Davis et al.			
		US 5,610,056	03/11/97	Nakahata			
		US 5,635,387	06/03/97	Fel et al.			
		US 5,646,043	07/08/97	Emerson et al.			
		US 5,670,351	09/23/97	Emerson et al.			
		US 5,677,136	10/14/97	Simmons et al.			

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FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
gu		WO95/06112	03/02/95	PCT				
		WO97/17079	05/15/97	PCT				
		WO97/41224	11/06/97	PCT				
		WO98/21313	05/22/98	PCT (in Japanese)				
		WO99/30723	06/24/99	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

gu		AABB Standards and Manuals available through www.aabb.org .
1		Almeida-Porada et al., "Evaluation of Serum-Free Culture Conditions Able to Support the Ex Vivo Expansion and Engraftment of Human Hematopoietic Stem Cells in the Human-to-Sheep Xenograft Model," J. Hematotherapy & StemCell Research 9:683-693 (2000).

EXAMINER

Jae W. Lee

DATE CONSIDERED

11/24/04

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INFORMATION DISCLOSURE CITATION
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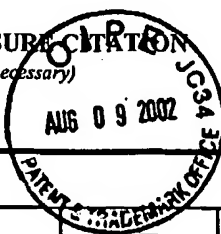
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<i>SW</i>		US5,688,687	11/18/97	Palsson et al.			
		US 5,766,951	06/16/98	Brown			
		US 5,807,686	09/15/98	Wagner et al.			
		US 5,827,742	10/27/98	Scadden			
		US 5,866,400	11/24/98	Terstappen et al.			
		US5,840,580	02/02/99	Palsson et al.			
		US 5,888,807	03/30/99	Palsson et al.			
		US 5,914,108	06/22/99	Tsukamoto et al.			
		US 5,945,337	08/31/99	Brown			
		US 5,985,653	11/16/99	Amstrong et al.			
		US 5,994,129	11/30/99	Armstrong et al.			

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FOREIGN PATENT DOCUMENTS

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							YES	NO
		WO00/36090	06/22/00	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>SW</i>		Almici et al., "Umbilical cord blood as a source of hematopoietic stem cells: from research to clinical application," Haematologica 80(5):473-9 (1995).
<i>SW</i>		Bhatia et al., "Quantitative analysis reveals expansion of human hematopoietic repopulating cells after short-term ex vivo culture," J. Exp Med 186(4):619-24 (1997).

EXAMINER

Joe Winters

DATE CONSIDERED

11/24/04

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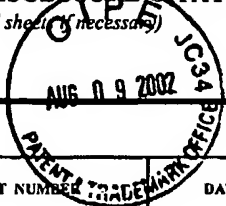
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HCSC-101

Application Number
10,090,632

Applicant(s)
Clark Lum

Filing Date
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1636



U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
gw		US 6,030,836	02/29/00	Thiede et al.			
		US 6,048,721	04/11/00	Armstrong et al.			
		US6,096,532	08/01/00	Armstrong et al.			

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FOREIGN PATENT DOCUMENTS

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							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

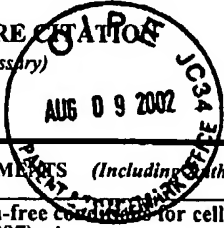
gw		BioWhittaker Catalogue information on X-VIVO 10 serum free culture media, www.biowhittaker.be/xvivointro .
gw		Brown, R.A., et al., "High-dose etoposide, cyclophosphamide and total body irradiation with allogeneic bone marrow transplantation for resistant acute myeloid leukemia: a study by the North American Marrow Transplant Group," Leuk Lymphoma 2:271-277 (1996).


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DATE CONSIDERED **11/24/09**

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INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Docket Number (Optional) HCSI-101	Application Number 10/090,632
		Applicant(s) Clark Lum	
		Filing Date March 6, 2002	Group Art Unit 1636

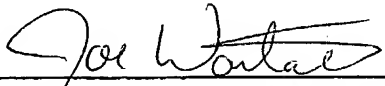


*EXAMINER INITIAL	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Brown, et al., "Serum-free conditions for cells capable of producing long-term survival in lethally irradiated mice," Stem Cells 15(3):237-45 (1997).
	Brown, et al., "Ex Vivo Serum-Free Culture Conditions for the Maintenance, Expansion and Engraftment of Human CD34+ Hematopoietic Stem Cells and Progenitors," Cancer Research Therapy and Control 7:123-129 (1998).
	Brown, et al., "High-dose etoposide, cyclophosphamide, and total body irradiation with allogeneic bone marrow transplantation for patients with acute myeloid leukemia in untreated first relapse: a study by the North American Marrow Transplant Group," Blood 85(5) 1391-1395 (Mar. 1, 1995).
	Broxmeyer et al., "Growth characteristics and expansion of human umbilical cord blood and estimation of its potential for transplantation in adults," NAS USA 89:4109 (May 1992).
	Capmany, et al., "Short-term, serum-free, static culture of cord blood-derived CD34+ cells: effects of FLT3-L and MIP1 alpha on in vitro expansion of hematopoietic progenitor cells," Haematologica 84:675-682 (1999).
	Civin, C, Stem Cells Meeting Report, "Gene Therapy in Clinical Applications," Stem cells 18:150-156 (2000).
	Clinical Laboratory Improvement Amendments ("CLIA") at http://www.cms.hhs.gov/clia/ .
	Cordblood Transplantation Study, Cord Blood Bank Standard Operating Procedures (SOP) Chapter 4 Processing Procedures, Chapter 5 Shipping Procedures, Chapter 6, Sample Testing and Characterization, Chapter 7 Quality Assessment, Illustrations for COBLT CBU Thawing SOP, at http://spitfire.emmes.com/study/cord/sop.htm .
	Current Good Tissue Practice for Manufacturers of Human Cellular and Tissue-Based Products; Inspection and Enforcement, Proposed Rule 21 CDR 1271 (Fed. Reg. 6615): 1507-1559 (1/8/2001).
	Daley, et al., "Ex vivo expansion of human hematopoietic progenitor cells in serum-free StemPro™-34 Medium," Focus 18(3):62-67.
Smith et al., "Neutrophil maturation of CD34+ cells from peripheral blood and bone marrow in serum-free culture medium with PIXY321 and granulocyte-colony stimulating factor (G-CSF), J Hematotherapy 6(4):323-34 (Aug. 1997).	
De Bruyn et al., "Modulation of human cord blood progenitor cell growth by recombinant human Interleukin 3 (IL-3), IL-6, granulocyte-macrophage colony stimulating factor (GM-CSF) and stem cell factor (SCF) in serum-supplemented and serum-free medium," Stem Cells 12(6):616-25 (1994).	

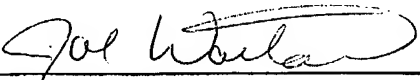
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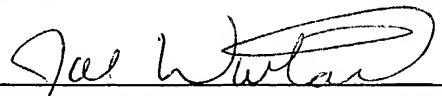
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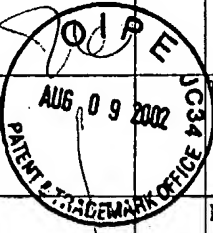
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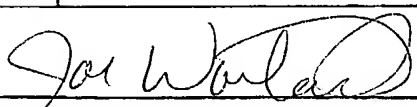
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		HCSI-101		10/090,632	
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		Clark Lum			
		Filing Date		Group Art Unit	
		March 6, 2002		1636	
*EXAMINER INITIAL	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
qu	Denning-Kendall et al., "Is in vitro expansion of human cord blood cells clinically relevant?" Bone Marrow Transplant 21:225 (2/98).				
	"Draft Document Concerning the Regulation of Placental/Umbilical Cord Blood Stem Cell products Intended for Transplantation or Further Manufacture Into Injectable Products," FDA, Docket No. 96N-0002 (Dec. 95).				
	Drouet et al., "Human liquid bone marrow culture in serum-free medium," Br. J. Haem. 73:143-147 (6/89).				
	Durand et al., "Long-term generation of colony-forming cells (FCFC) from CD34+ human umbilical cord blood cells," Leuk Lymphoma 11:263 (1993).				
	Lifetechnologies Tech-Online "Serum-Free Media" at www.lifetech.com/Content/Tech-Online/cell_culture/product_description/sfree8n9.pdf .				
	"Establishment Registration and Listing for Manufacturers of Human Cellular and Tissue-based Products," FDA Proposed Rule, 63 Fed. Reg. 26744 (May 14, 1998).				
	FAHCT Standards and Manuals available through http://www.unmc.edu/Community/fahct/orders.htm ;				
	"Human Cellular and Tissue-based Products," 21 CFR 1271 proposed revisions, Federal Register 66(5):1551-1559 (Jan. 8, 2001).				
	"Draft Document Concerning the Regulation of Pheripheral Blood Hematopoietic Stem Cell Products Intended for Transplantation or Further Manufacture into Injectable Products" FDA (Feb. 96).				
	Flake, et al. "In utero hematopoietic stem cell transplantation: ontogenic opportunities and biologic barriers," Blood 94:2179-2191 (1999).				
	Gilmore, et al., "Ex vivo expansion of human umbilical cord blood and peripheral blood CD34(+) hematopoietic stem cells," Exp Hematol 28(11):1295-305 (Nov. 2000).				
	"Serum-Free Medium for the Support of Hematopoietic Stem/Progenitor Cells," Hematology Research News 1(1): 1-2 (10/97).				
EXAMINER		DATE CONSIDERED			
		11/24/07			
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		Applicant(s) Clark Lum	
		Filing Date March 6, 2002	Group Art Unit 1636
*EXAMINER INITIAL	OTHER DOCUMENTS. <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>		
	International Society for Hematotherapy and Graft Engineering (ISHAGE) at http://www.ishage.org/ .		
	Kelly, et al. "Umbilical cord blood stem cells: Application for the treatment of patients with hemoglobinopathies," J. Pediatrics 130:695-703 (1997).		
	Kobari, et al., "In vitro and in vivo evidence for the long-term multilineage (myeloid, B, NK, and T) reconstitution capacity of ex vivo expanded human CD34(+) cord blood cells," Exp Hematol 28(12):1470-80 (2000).		
	Kogler et al., "The effect of different thawing methods, growth factor combinations and media on the ex vivo expansion of umbilical cord blood primitive and committed progenitors," Bone Marrow Transplant 21(3):233-41 (1998).		
	ITxM Diagnostics, Hematopoietic Stem Cell Laboratory, description of services, www.itxm.org/CBB/hsc.htm , visited on Jan. 5, 2001).		
	Stem Cell Sciences Inc., Introducing the Joint Services of Stem Cell Sciences, Inc. and the Oncology/Hematology Practice of Nicholas Ciobanu, M.D., F.A. C.P. & Associates; Stem Cell Sciences UCB Stem Cells Transplant Services described at www.stem-cell.com/transplant..		
	Koller et al., "Clinical-scale human umbilical cord blood cell expansion in a novel automated perfusion culture system," Bone Marrow Transplant 21:65-63 (4/98) and at www.aastrom.com .		
	Kurtzberg et al, "Unrelated placental blood in marrow transplantation," Stem Cells 18(2):153-4 (3/00).		
	McCowage GB, et al, "Multiparameter-fluorescence activated cell sorting analysis of retroviral vector gene transfer into primitive umbilical cord blood cells," et al., Exp Hematol 26(4):288-98 (Apr 1998).		
	Laver J et al., "Effects of CD34+ selection and T cell immunodepletion on cord blood hematopoietic progenitors: relevance to stem cell transplantation," Exp Hematol 23(14):1492-6 (1995).		
Life Technologies Catalogue No. 10639 StemPro-34 SFM media (Dec. 2000).			RECEIVED AUG 13 2002
Life Technologies Catalogue Information on AIM V StemPro.			TECH CENTER 1600/2900
EXAMINER	DATE CONSIDERED		
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		Applicant(s)			
		Clark Lum			
		Filing Date		Group Art Unit	
		March 6, 2002		1636	


*EXAMINER INITIAL	OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>
	Life Technologies Catalogue No. 10708, Stem Pro Complete Methylcellulose Medium (Dec. 2000). .9
	Progenitor Cell Therapy, LLC, description of services at www.progenitorcell.net/main.htm , visited on Mar. 13, 2001. .4
	Nakahata, T., "Cord blood transplantation and ex vivo expansion of hematopoietic stem cells," Rinsho Byori, Suppl10:54-62 (1999). .4
	Noga SJ, "Engineering hematopoietic graft s using elutriation and positive cell selection to reduce GVHD," Cancer Treat Res 101:311-30 (1999). .4
	Novelli et al, "Ex vivo culture of cord blood CD34+ cells expands progenitor cell numbers, preserves engraftment capacity in nonobese diabetic/severe combined immunodeficient mice, and enhances retroviral transduction efficiency," Hum Gene Ther 10(18):2927-40 (1999). .4
	O'Neil, B, "Implementing a validation program in a cord blood bank," J. Hematother 5:139-43 (Apr. 1996). .6
	Pecora et al. , Bone Marrow Transplant 25(7):797-9 (Apr. 2000). .4
	Piacibello et al., "Extensive amplification and self-renewal of human primitive hematopoietic stem cells from cord blood," Blood, 89:2644-2453 (4/97). .4
	"Products for Hematopoietic Cell Culture," Quality Biological, Inc. (Dec. 9, 1996). .1
	Qiu et al., "Ex vivo expansion of CD34+ Umbilical Cord Blood Cells: May [be] eligible for Transplantation in Adult Patients," Exp Hematol 26:8:82 (Aug. 1-5, 1998). .4
	Qui, et al., "Experimental study on ex vivo expansion of CD(34)(+) umbilical cord blood cells," Zhonghua Zue Ye Zue Za Zhi 21(8):417-20 (Aug. 2000). .4
	Qiu, et al., "Ex vivo expansion of CD34+ umbilical cord blood cells in a defined serum-free medium (QBSF-60) with early effect cytokines," J. Hematotherapy & Stem Cell Research, 8:609-618 (1999); .4

EXAMINER	DATE CONSIDERED
	11/24/07

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		Applicant(s) Clark Lum	
		Filing Date Mar. 6, 2002	Group Art Unit 1636

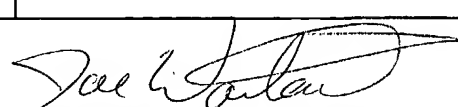
*EXAMINER INITIAL		OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>
		"Serum-Free Cell Culture Media," Quality Biological.
		Quality Biological Brochure, "Serum Free Media Development," (1995).
		Querol et al., "Expansion of cord blood progenitor cells," Bone Marrow Transplant 21 Suppl 3:S77-80 (1998).
		Reems et al., "Obtaining an accepted Investigational New Drug application to operate an umbilical cord blood bank," Transfusion 39:357-63 (1999).
		Sakabe et al., "Haematopoietic action of Flt3 ligand on cord blood-derived CD34-positive cells expressing different levels of flt3 or c-kit tyrosine kinase receptor: comparison with stem cell factor," J Eur. Haematol 60(5): 297-306 (1998);
		Shaddock et al., "Rose of Serum-Free Medium in the Ex Vivo Expansion of Human Cord Blood Hematopoietic Stem Cells (Meeting Report), Stem Cells 18:154-5 (2000);
		Smith et al., "Neutrophil Maturation of CD34+ Cells from Peripheral Blood and Bone Marrow in serum-Free Culture Medium Supplemented with G-CSF," Granulocytes and Monocytes, 2832, p.711a, Baxter Healthcare Corp.
		"Suitability Determination for Donors of Human Cellular and Tissue-based Products," FDA Proposed Rule 64 Fed. Reg. 52696 (Sept. 30, 1999).
		Takahira et al., "Flt3 ligand prolongs survival of CD34+++ human umbilical cord blood myeloid progenitors in serum-depleted culture medium," Ann Hematol 72(3):131-5 (1996).
		University of Minnesota's Cord Blood Transplantation Study Protocol; http://server3.cancer.umn.edu/page/research/trsplant .
	Cryocyte™ Freezing Containers Product Site, product description, Nexell Therapeutics Inc., www.cryocyte.com/description/description.htm , visited on Mar. 13, 2001.	
	Serum-Free Products and Serum Substitutes," Product Description, StemSpan™, www.stemcell.com/stemcell/htm/product_pages/stemspan.html , visited on February 27, 2001.	

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		Applicant(s)	
		Clark Lum	
		Filing Date	Group Art Unit
		Mar. 6, 2002	1636

*EXAMINER INITIAL		OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>
		Van Zant et al., Expansion in bioreactors of human progenitor populations from cord blood and mobilized peripheral blood, Blood Cells 20(2-3):482-90 (1994).
		Verfaillie et al., "Kinetics of engraftment of CD34-) and CD34+) cells from mobilized blood differs from that of CD34(-)and CD34(+) cells from bone marrow," Exp. Hematol. 28:1071-1079 (2000).
		Yamaguchi et al., Serum-free coculture system for ex vivo expansion of human cord blood primitive progenitors and SCID mouse-reconstituting cells using human bone marrow primary stromal cells, Exp Hematol 29(2):174-182 (2001).
		Yin et al., "AC133, a novel marker for human hematopoietic stem and progenitor cells, " Blood 90(12):5002-12 (1997).
		Yoshida et al., "Thrombopoietin alone stimulates the early proliferation and survival of human erythroid, myeloid and multipotential progenitors in serum-free culture," Br J. Haematol 98(2):254-64 (1997).
		Zuck, TF, "The applicability of cGMP to cord blood cell banking," J Hematotherapy 5:135-7 (1996).
		Biological Response Modifiers Advisory Committee Meeting November 13, 1998 at www.fda.gov/ohrms/dockets/ac/98/transcpt/3475 (URL only).
		Unrelated Allogenic Cord Blood Banking and Transplant Forum (Aug. 14-15, 2000) at www.NHLBI.nih.gov/meetings/cobl_fyrhtm.schedule only.
		Weiss, et al., "Chemically defined Serum-Free Media for the Cultivation of Primary Cells and Their Susceptibility to Viruses," In Vitro 16(7):616-628 (1980).
		PR Newswire, Aastrom Biosciences Awarded Two NIH Grants for Umbilical Cord Blood Transplants and AIDS Gene Therapy; Grants Support Development of New Applications for Aastrom's Enabling Technologies for the Transplantation and Gene Modification of Human Stem Cells,(Oct. 7, 1997); "Aastrom Biosciences Awarded NIH Grant to Support Cord Blood Transplant Program," Aastrom News Release (July 27, 2000).
	Aastrom Product Overview, Business Model, and NIH Award News Release, Oct. 20, 1998, available through www.aastrom.com ; "Aastrom Biosciences Awarded Phase II SBIR Grant to Support Umbilical Cord Blood Transplant Program," Aastrom News Release (Oct. 20, 1998).	

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	u/24/07

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HCSI-101

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

LUM, CLARK

Serial No.: 10/090,632

Filed: March 6, 2002

For: SYSTEM AND METHOD FOR
DELIVERING UMBILICAL CORD-
DERIVED TISSUE-MATCHED
STEMS FOR TRANSPLANTATION

Art Unit: 1636

Examiner: Not Yet Assigned

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants wish to make of record in the above-identified application the documents referenced on the attached Form PTO-1449. A copy of each reference is enclosed herewith.

The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application. Accordingly, Applicants do not believe that a fee is due for filing this paper. However, should a first action on the merits have been issued on the same day or before this Information Disclosure Statement is filed, please accept this Information Disclosure Statement under Rule 97(c) and charge the requisite Rule 17(p) fee to our Deposit Account No. 50-1390, under Order No. HCSI-101 and proceed to consider this Information Disclosure Statement.

Serial No.: 10,090,632
Art Unit: 1636

Attorney's Docket No.: HCSI-101
Page 2

It is respectfully requested that the information be expressly considered during the prosecution of this application, and that each reference be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This submission does not represent that any referenced document is material or constitutes "prior art." If it should be determined that one or more of the referenced documents constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the reference or references.

WO98/21313, in Japanese, is cited as being directed to a method for culturing hematopoietic stem cells.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over any referenced document, should it be applied against the claims of the present application.

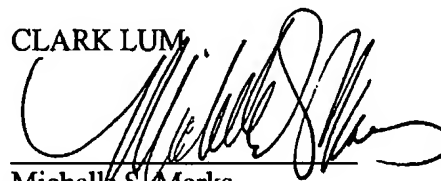
SHAW PITTMAN LLP
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Date: August 9, 2002

Respectfully submitted,

CLARK LUM

By:


Michelle S. Marks
Registration No. 41,971



HCSI-101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#5/58
9/28/02
PATENT

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In re the Application of:

CLARK LUM

Serial No.: 10/090,632

Filed: March 6, 2002

For: SYSTEM AND METHOD FOR
DELIVERING UMBILICAL CORD-
DERIVED TISSUE-MATCHED
STEM CELLS FOR
TRANSPLANTATION

Art Unit: 1636

Examiner: Unknown

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants wish to make of record in the above-identified application the document or documents referenced on the attached Form PTO-1449. A copy of each reference is enclosed herewith.

The cited references are mentioned in the Search Report (copy enclosed) of applicant's corresponding International patent application and are believed relevant for at least that reason.

The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Accordingly, Applicants do not believe that a fee is due for filing this paper. However, should a first action on the merits have been issued on the same day or before this Information Disclosure Statement is filed, please accept this Information Disclosure Statement under Rule 97(c) and

Serial No.: 10/090,632
Art Unit: 1636

Attorney's Docket No.: HCSI-101
Page 2

charge the requisite Rule 17(p) fee to our Deposit Account No. 50-1390, under Order No. HCSI-101 and proceed to consider this Information Disclosure Statement.

It is respectfully requested that the information be expressly considered during the prosecution of this application, and that each reference be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This submission does not represent that any referenced document is material or constitutes "prior art." If it should be determined that one or more of the referenced documents constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the reference or references.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over any referenced document, should it be applied against the claims of the present application.

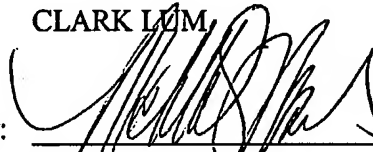
SHAW PITTMAN LLP
1650 Tysons Boulevard
McLean, VA 22102
Tel: 703/770-7645

Date: September 25, 2002

Respectfully submitted,

CLARK LUM

By:


Michelle S. Marks
Registration No. 41,971

MSM/lf
1274157



HCSI-101

PATENT -

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

C. LUM

Serial No.: 10/090,632

Filed: March 6, 2002

For: SYSTEM AND METHOD FOR
DELIVERING UMBILICAL CORD-
DERIVED TISSUE-MATCHED
STEM CELLS FOR
TRANSPLANTATION

Art Unit: 1636

Examiner: Not Yet Assigned

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants wish to make of record in the above-identified application the document or documents referenced on the attached Form PTO-1449. A copy of each reference is enclosed herewith.

The Written Opinion (copy enclosed) is mentioned in the applicant's corresponding International patent application and is believed relevant for at least that reason.

The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Accordingly, Applicants do not believe that a fee is due for filing this paper. However, should a first action on the merits have been issued on the same day or before this Information Disclosure Statement is filed, please accept this Information Disclosure Statement under Rule 97(c) and

Serial No.: 10/090,632
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Page 2

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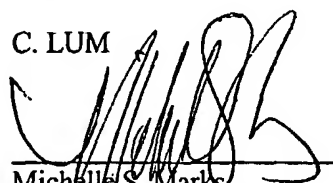
SHAW PITTMAN LLP
1650 Tysons Boulevard
McLean, VA 22102
Tel: 703/770-7900

Date: September 3, 2003

Respectfully submitted,

C. LUM

By:


Michelle S. Marks
Registration No. 41,971



* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.